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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/046,314

01/16/2002

Jean-Yves Vion-Dury

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01/28/2008

OLIFF & BERRIDGE, PLC

P.O. BOX 320850

ALEXANDRIA, VA 22320-4850

EXAMINER

WALSH, JOHN B

ART UNIT

PAPER NUMBER

2151

MAIL DATE

DELIVERY MODE

01/28/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/046,314

Applicant(s)

VION-DURY ET AL.

Examiner

John B. Walsh

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 101*

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1 and 3-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims are drawn to a program. A computer program (software, *per se*) is non-statutory subject matter since it does not fall within a statutory category of invention. The claims recite the program stored on a computer readable medium. However the specification discloses the medium may cover non-statutory subject matter (i.e. transmission media, signals).

The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” Both types of “descriptive material” are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because “[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.”).

The claims recite the program stored on a computer-readable medium. However, on page 43, lines 20-29 of the instant specification, applicant has provided evidence that applicant intends the “medium” to include signals since the computer usable media may comprise any transmitting

device and has been interpreted as a "transmission" or "propagating" signal. As such, the claim is drawn to a form of energy. Energy is not one of the four categories of invention and therefore this claim(s) is/are not statutory. Energy is not a series of steps or acts and thus is not a process. Energy is not a physical article or object and as such is not a machine or manufacture. Energy is not a combination of substances and therefor not a composition of matter.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. As best understood, claims 1 and 3-15 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,487,566 to Sundaresan.

As concerns claim 1, identifying and testing the structural form of the expression (column 4, lines 32-38; column 5, lines 40-60; figure 3); choosing a transformation model for the filter that is compatible with the structural form of the expression (column 4, lines 35-38; column 6, lines 32-33; figure 3); evaluating a first code structure representing the expression to determine a value of said expression prior to filtering (figure 3; 308; column 6, lines 30-40; 308 is prior to steps 310, 312); analyzing a second code structure representing the filter to determine the characteristics of the filter (figure 3; 310, 312; column 6, lines 30-40), wherein the second code structure comprises a plurality of filter characteristics (col. 6, lines 42-44) corresponding to a plurality of possible structural forms (col. 6, lines 42-44) of the first code structure, and wherein the second code structure applies a filter (figure 3; 314, 316, 318; column 6, lines 38-42) corresponding to the structural form of the first code structure; and filtering said evaluated value

according to the filter characteristics (figure 3, 314, 316, 318; column 6, lines 38-42); wherein said first code structure is constructed from a plurality of first programming language code structure elements and said second code structure is constructed from a plurality of second programming language code structure elements (column 6, line 38-41; XML; column 12, lines 42-45); each second structure element being symmetrically constructed to correspond to one of said first structure elements (figure 3, 312-match-yes); and wherein evaluating, analyzing and filtering are performed upon explicit invocation of a matching operator (figure 3, 312; column 6, line 38), and filtering comprises returning a Boolean evaluation result value (figure 3, 312; column 6, line 40).

As concerns claim 3, the second code structure includes at least one composition operator acting as a logical connector (column 9, line 28 and 41; column 7, lines 54-55) for logically combining two of said programming language code structure elements, or for inverting the Boolean value of at least one of said second programming language code structure elements.

As concerns claim 4, the first code structure includes a first concatenation operator (column 11, lines 42-44, 58-62) for concatenating two expressions, and the second code structure includes a second concatenation operator (column 11, lines 42-44, 58-62) for concatenating two filter elements, the first and the second concatenation operators being applied with the first code structure and the second code structure, respectively, in essentially the same manner.

As concerns claim 5, wherein the first and second code structures include indicator elements indicating a data type (column 9, lines 22-23; attributes), the indicator elements acting as structure constructors in the first code structure and as filter constructors in the second code structure, each of the structure constructors corresponding to a respective one of the filter constructors.

As concerns claim 6, wherein the second code structure includes a test operator having an operand and wherein filtering comprises testing the occurrence of the value of said operand in the expression (figure 3, 312).

As concerns claim 7, wherein the second code structure includes an existence operator that matching any element that exists (figure 3, 312).

As concerns claim 8, wherein the second code structure includes an assignment operator having an assignment operator having an operand, to assign a part of the expression to a variable (column 7, line 11) that is identified by said operand.

As concerns claim 9, the second code structure includes a Kleene operator (column 7, lines 54-55, “\*” and “+”, interpreted based on applicant’s specification page 13, line 9).

As concerns claim 10, the second code structure includes a do operator having two arguments, one argument being a filter and the other argument being an instruction or a sequence of instructions, wherein filtering includes executing the instructions only if the filter is successful (column 11, lines 17-32; column 12, lines 42-45-other languages use the “do” operator).

As concerns claim 11, the filter is a recursive filter enabling filtering of trees (figure 3, 310, 320).

As concerns claim 12, the filter is a normalized filter (column 6, line 40; normalized to true or false).

As concerns claim 13, filtering includes modifying the environment of the computer system (figure 3, 322, 316, 318), the environment including variables and corresponding values used by the computer system when filtering said value of said expression.

As concerns claim 14, the first code structure and the second code structure are part of an interpreter programming language code (column 12, lines 42-45).

As concerns claim 15, the first code structure and the second code structure are part of a compiler programming language (column 12, lines 42-45).

### *Response to Arguments*

5. Applicant's arguments filed October 30, 2007 have been fully considered but they are not persuasive. The applicant argues the amended limitations are not taught by Sundaresan. The claims have been given the broadest reasonable interpretation and these limitations have been addressed in the rejection above. Furthermore, the applicant recites aspects from page 9, lines 10-12 and page 10, lines 1-9. Unless these limitations have been recited in the claim they are not given patentable weight since limitation from the specification are not read into the claims.

### *Conclusion*

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

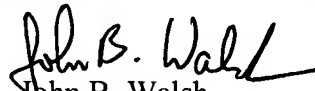
Application/Control Number:  
10/046,314  
Art Unit: 2151

Page 7

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Walsh whose telephone number is 571-272-7063. The examiner can normally be reached on Monday-Thursday from 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
John B. Walsh  
Primary Examiner  
Art Unit 2151